Case No. BP0207US-03

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

10/765,267

Confirmation No.: 9577

Applicant(s)

Pappin et al.

Filed

01/27/2004

TC/A.U.

1626

Examiner

Nyeemah Grazier

For

METHODS, MIXTURES AND

KITS PERTAINING TO

ANALYTE DETERMINATION

Customer No.

23544

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INFORMATION DISCLOSURE STATEMENT

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Sir:

Applicants submit herewith patents, publications or other information (listed on the attached Form PTO/SB/08A) of which they are aware, which may be material to the examination of this application and in respect of which there may be a duty to disclose in accordance with 37 CFR §1.56.

This Information Disclosure Statement:

- (a) [] accompanies a new patent application submitted herewith.
- (b) [] is filed within three months after the filing date of the application or within three months after the date of entry of the national stage of a PCT application as set forth in 37 CFR §1.491.
- (c) [] as far as is known to the undersigned, is filed before the mailing date of a first Office action on the merits.
- (d) [] as far as is known to the undersigned, is filed before the mailing date of a first

- Office action after the filing of a request for continued examination under § 1.114.

 (e) [x] is filed after the first Office Action and more than three months after the application's filing date or PCT national stage date of entry filing but, as far as is known to the undersigned, prior to the mailing date of either a final action under §1.113, a notice of allowance under §1.311, whichever occurs first, and is accompanied by either the fee (\$180) set forth in 37 CFR §1.17(p) or a certification as specified in 37 CFR §1.97(e), as checked below. Should any fee be due, the U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 01-2213 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement. Any deficiency or overpayment should be charged or credited to this deposit account. A duplicate of this sheet is enclosed.
- (f) [] is filed after the mailing date of either a final rejection or a notice of allowance, but on or before the payment of the issue fee, and is accompanied by the fee (\$180) set forth in 37 CFR §1.17(i)(1) and a certification as specified in 37 CFR §1.97(e), as checked below. This document is to be considered as a petition requesting consideration of the information disclosure statement. The U.S. Patent and Trademark Office is hereby authorized to charge Deposit Account No. 01-2213 in the amount of \$180.00 to cover the cost of this Information Disclosure Statement. Any deficiency or overpayment should be charged or credited to this deposit account. A duplicate of this sheet is enclosed.

[If either of boxes (e) or (f) is checked above, the following "certification" under 37 CFR §1.97(e) may need to be completed.] The undersigned certifies that:

| [] | Each item of information contained in the information disclosure statement was |
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| | reasonable inquiry, was known to any individual designated in 37 CFR §1.56(c) |
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While the information and references disclosed in this Information Disclosure Statement may be "material" pursuant to 37 CFR §1.56, it is not intended to constitute an admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

In accordance with 37 CFR §1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR §1.56(a) exists. It is submitted that the Information Disclosure Statement is in compliance with 37 CFR §1.98 and MPEP §609 and the Examiner is respectfully requested to consider the listed references.

Respectfully submitted,

Date: //16/0C

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Complete if Known Substitute for form 1449A/PTO 10/765,267 **Application Number Filing Date** 01/27/2004 NFORMATION DISCLOSURE **First Named Inventor** Pappin, Darryl et al. STATEMENT BY APPLICANT **Group Art Unit** 1626 **Examiner Name** Nyeemah Grazier (Use as many sheets as necessary) 3 Attorney Docket No. BP0207US-03

| U.S. PATENT DOCUMENTS | | | | | | | | | |
|-----------------------|--------------|----------------|--------------------------|----------------|-----------------------------|---|--|--|--|
| Examiner Initials* | Cite No.1 | Cite No.1 | Cite No. ¹ | r Cite No.1 | U.S. Patent Docum Number | Kind Code ² (if known) | Name of Patentee or Applican of Cited Document | Date of Publication of Cited Document MM-DD-YYYY | Pages, Columns, Lines Where Relevant Passages or Relevant Figures Appear |
| | AW | US2002/0192720 | A1 | Parker et al. | 12/19/2002 | , | | | |
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| | FOREIGN PATENT DOCUMENTS | | | | | | | |
|-----------|--------------------------|---------------------|-----------------------|--------------------------------------|-----------------------------|---------------------------------|---|----------------|
| Examiner | Cite | | Foreign Patent Docume | ent | Name of Patentee or | Date of Publication | Pages, Columns, Lines | |
| Initials* | No. 1 | Office ³ | Number ⁴ | Kind Code ⁵ (if known) | Applicant of Cited Document | of Cited Document MM-DD-YYYY | Where Relevant Passages or Relevant Figures Appear | T ⁶ |
| | BZ | | WO2003/ 056343 | A2 | JAMES, Peter | 07-10-2003 | | |
| | CA | | WO03/078584 | A2 | Thermo Finnigan | 09-25-2003 | | ĺ |
| _ | СВ | | WO04/086050 | A2 | Xzillion GmbH & Co. KG | 10-07-2004 | | |
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|-------|--------------------------------|-------------|---------|----------------------|-----------------------|--|
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| T | NFORMATION | DISC | CLOSURE | Filing Date | 01/27/2004 | |
| | | | | First Named Inventor | Pappin, Darryl et al. | |
| 5 | TATEMENT B | TAPP | LICANI | Group Art Unit | 1626 | |
| _ | (Use as many she | ets as nece | ssary) | Examiner Name | Nyeemah Grazier | |
| Sheet | 2 | of | 3 | Attorney Docket No. | BP0207US-03 | |

| _ | | OTHER ART - NON PATENT LITERATURE DOCUMENTS | | | | |
|-----------------------|---|--|---|--|--|--|
| Examiner Initials* | Cite No. 1 | Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published. | 2 | | | |
| | GT Barlett Jones, M., et al., "Peptide Ladder Sequencing by Mass Spectrometry Using a Novel, Volatile Degradation Reagent", Rapid Communications in Mass Spectrometry, Vol 8, 737-742 (1994) | | | | | |
| | GU | Day, Richard et al, "N-Terminal Groups in Mass Spectrometry of Peptides. A Study Including Some New and Useful Derivatives", J. Org. Chem., Vol 38, No. 4, 1975 782-788 | | | | |
| | GV Duffield, A. et al., "Mass Spectrometry in Structural and Stereochemical Problems LVIII. A Study of the Fragmentation Processes of Some Lactams", Contribution from the Department of Chemistry of Stanford University, Stanford, CA, August 5, 1964, pps. 5536-5541 | | | | | |
| | GW | Gatlin, C et al, "Copper(II) Amino Acid Complexes in the Bas Phase", J. Am. Chem. Soc. 1995, 117, 3637-3638 | | | | |
| | GX | Gatlin, C et al, "Carboxylate and Amine Terminus Directed Fragmentations in Gaseous Dipeptide Complexes with Copper (II) and Diimine Ligands Formed by Electrospray, Anal. Chem. 1996, 68, 263-270 | | | | |
| | GY | Haralambidou, E., et al., "Effect of Distal Positional Isomerism on Peptide Fragmentation. A Comparison of Dimethylaminobenzylidene and Benzoyl Derivatives", Organic Mass Spectrometry, 10: 683-697 (1975) | | | | |
| | GZ | Medzihradszky, Katalin et al, "Peptide Sequence Determination by Matrix-Assisted Laser Desorption Ionization Employing a Tandem Double Focusing Magnetic-Orthogonal Acceleration Time- of-Flight Mass Spectrometer", American Society for Mass Spectrometry, 1996, 7, 1-10 | | | | |
| | на | Spengler, R et al, "Peptide Sequencing of Charged Derivatives by Postsource Decay MALDI Mass Spectrometry", International Journal of Mass Spectrometry and Ion Processes, 169/170 (1997) 127-140 | | | | |

| | | |
|-----------|------------|---|
| Examiner | Date |] |
| Signature | Considered | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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Attorney Docket No.

| НВ | SuBmuth, R., et al, "Impact of Mass Spectrometry on Combinatorial Chemistry", Journal of Chromatography B, 725 (1999) 49-65 |
|----|---|
| нс | Roth, Kenneth et al, "Charge Derivatization of Peptides for Analysis by Mass Spectrometry", Mass Spectrometry Reviews, 1998, 17, 255-274 |
| HD | Zhu, Xuegong et al, "Peptide Quantification by Tandem Mass Spectrometry", Mass Spectrometry Reviews, 1996, 15, 213-240 |
| HE | Peng, Junmin et al, "Proteomics: the move to mixtures", Journal of Mass Spectrometry, 2001: 36, 1083-1091 |
| нғ | Ross, Philip et al, "Investigation of Chemical Derivatization for Peptide CID Using LC-MALDI TOF MS/MS", Applied Biosystems Poster Number ThPF 250 |
| HG | Huang, Yulin et al, "A Method for High Efficiency Peptide Sequencing Using Combined Enzymatic Digestion and Chemical Derivatization on MALDI MSMS", Applied Biosystems Poster Number 1159 |
| нн | Sherman, Nicholas et al, "A Novel N-Terminal Derivative Designed to Simplify Peptide Fragmentation", Proceedings of the 43 rd ASMS Conference on Mass Spectrometry and Allied Topics, Atlanta, Georgia, May 21-26 1995, pp 626-627 |
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| Examiner | Date | |
|-----------|------------|--|
| Signature | Considered | |

^{*}EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

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